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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,109	04/08/2004	Kazuki Omata	OMATA2	8285
1444	7590	10/14/2005	EXAMINER	
BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303			SHALLENBERGER, JULIE ANN	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 10/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/820,109

**Applicant(s)**

OMATA, KAZUKI

**Examiner**

Julie A. Shallenberger

**Art Unit**

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/9/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5-11, and 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Sugimoto (2004/0190304).

With respect to independent claim 1 Sugimoto teaches an element 1 comprising a circuit substrate for an LED unit 2 having an electrode pattern C and a reflecting frame with a concave portion on the inner surface and a broadening taper shape, described in paragraph 0019 of page 2 and seen in figure 1. Claim 5 contains all these elements from 1, and additionally a lens body, and substrate with at least one air hole. Sugimoto's lens body is optical element 4 and the air holes 9a and 9b are disclosed in paragraph 0090.

With respect to claims 2 and 3, Sugimoto teaches a plurality of LED elements assembled on a substrate in paragraph 0070 which are sealed by a transparent resin described in paragraph 0023. Sugimoto also teaches a gallium nitride semi conductor disclosed in paragraph 0060 as claimed in 3.

In paragraph 0061, Sugimoto teaches the use of a convex lens 4 comprising convex and planar surfaces as claimed in 6 and 7.

With respect to claims 8 and 9, Sugimoto teaches the use of a transparent resin in paragraph 0023 which is used to seal the LED elements.

With respect to claims 10 and 11, Sugimoto teaches the use of a blue light and YAG mixed in resin to produce yellow light in paragraph 0060 and further discusses producing white light in paragraph 0063.

With respect to claims 14 and 15, Sugimoto's element 1c in figures 20-23 discloses a mirror reflecting surface on the inner peripheral surface of the concave portion as claimed in 14 and 15. Sugimoto further describes this element in paragraph 0082.

With respect to claims 16 and 17, Sugimoto describes a molded optical element 4 and an LED 2 bonded to the concave section 1a on a substrate 1 which comprises a circuit and forms a three dimensional shape. These elements as claimed in 14 and 15 are disclosed by Sugimoto in paragraph 0061 and may be seen in figures 1-3.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto in view of Huang (5,947,588). Sugimoto teaches the elements of claims 1 and 2 stated above, but lacks the teaching of LED elements being spaced out equally of a central portion of the reflecting surface. Huang teaches such spacing in the fifth paragraph of the embodiment description and is also shown in figure one.

It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Sugimoto 's LED with Huang's even LED spacing about a central portion to provide even distribution of light.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto in view of Yamaguchi (5,564,819). Sugimoto teaches the use of the blue LED and further discusses applications for using a light source for mixed color light in paragraph 0093 but lacks the specific use of red, blue, and green colors as claimed in 12 and 13. Yamaguchi teaches the use of red and green LED chips elements 5 and 6 disclosed in column four lines 63-65.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Yamaguchi's red and green LED elements and Sugimoto's blue LED element to produce a unit capable of producing any desired colors.


#### CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie A. Shallenberger whose telephone number is (571)272-7131. The examiner can normally be reached on Monday - Friday 830-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on 571-272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



RENEE LUEBKE  
PRIMARY EXAMINER